

EPA Incorporation of Yakama Technical Comments submitted January 26, 2018
Pre-RD Acoustic Fish Tracking Study Field Sampling Plan (FSP) dated January 18, 2018
Portland Harbor Superfund Site

Comment	How incorporated in EPA comments
<p>1. The purpose of the fish tracking study is not clear and seems destined to raise more questions than answers. Tracking small mouth bass movement via acoustic tags on 40 fish in the Willamette River will help inform where those particular fish move while they are monitored. However, data on the movement of 40 fish that must be a certain size range does not answer what the home range is of small mouth bass in the Willamette River. Juvenile and older age classes will be excluded from this study which could behave differently than the harvestable size the study is focused on. In addition, the study will only track fish for one year in a river system which environmental conditions vary dramatically annually. We see this study as just another data point in the previous work that has been conducted on small mouth bass and will not supersede that work.</p>	<p>It is EPA's opinion that the fish tracking study is not designed to supersede previous work, but rather to supplement the existing dataset. The study design is consistent with other fish tracking studies and should inform small mouth bass movement in key areas within the Superfund Site. Adult fish are the target age class of the study because they are consumed by humans and therefore convey the risk of exposure to polychlorinated biphenyls.</p>
<p>2. Section 4.2. The FSP indicates that permits to perform this work have not been obtained and that there is uncertainty about which permits or permit equivalencies are required. Permits and permit equivalencies must be listed and required conditions that affect field work must be included in the FSP.</p>	<p>This comment is addressed by EPA Primary Comment 9.</p>
<p>3. Section 4.6.1. We have concerns about the documentation of fish harvest/sampling locations with the use of live wells to hold up to 4 fish. Fish size and length may not be all that different between 4 fish within this limited size range, may prove difficult to distinguish between fish until the fish are tagged, and could lead to fish being assumed to come from the wrong area. This is important for both the fish tracking study and is especially critical to have if any fish is analyzed later in the fish tissue study.</p>	<p>Section 4.6.1 details how the vessel livewells (pre-surgery) and post-surgery livewells will be identified with a unique ID, how identifying information will be measured for each fish upon capture (length, fork length, and weight), and that pre-surgery livewells will be limited to 4 fish. EPA has deemed these procedures as sufficient for the correct identification of captured fish prior to implantation. Additionally, EPA has requested that the fish collection SOP referenced in Section 4.6 be included in Appendix A, which should further detail identification procedures (EPA Primary Comment 12).</p>
<p>4. Section 4.6.3. The FSP indicates that fish may not be returned to the same location. All efforts should be made to return fish to the same place to avoid affecting fish behavior and movement.</p>	<p>EPA agrees with this statement, and will ensure that this procedure is followed during field oversight of the study activities.</p>